development of plant pathology in Japan"; S. Ito, "A preliminary report on a late blight resistant strain of potato"; T. Hemmi, "Vorlaüfige Mitteilung über eine neue Anthraknose von *Evonymus japonica*"; S. Miura, "On the grain of barley or wheat, infected by smut fungus through the flower"; S. Hori and U. Bokura, "Soy bean cake as a substitute for peptone in the preparation of nutrient media."—J. M. C.

Evolution of maize.—Weatherwax[21] has made a detailed study of the origin of maize, concerning which there has been much discussion. A comparative study of many varieties of maize and related species has led him to the theory that vestigial organs indicate that *Zea*, *Euchlaena*, and *Tripsacum* are of the same structural type, their present peculiarities being due to the suppression of parts present in a primitive ancestor with perfect flowers and one type of inflorescence. The ear of maize is regarded as the homologue of the central spike of the tassel. The prevailing theory that maize is of hybrid origin he regards as untenable, his conclusion being that *Zea* and the other two genera mentioned "have descended independently from a common ancestral form now extinct."—J. M. C.

Ferns of Borneo.—Copeland[22] has brought together in a convenient list the ferns of Borneo, accompanied by analytical keys. The fern flora is very impressive, including 697 recorded species, representing 88 genera. In another paper[23] the same author shows that the riches of the fern flora are far from exhausted, for he describes 43 new species from Borneo, 12 of which are species of *Cyathea*, and also a new genus (*Oreogrammatis*) related to *Polypodium*.—J. M. C.

Bryophytes of Iceland.—Hesselbo[24] has published a rather complete account of the Bryophytes of the island of Iceland. His annotated list shows 93 species of the Hepaticae, 20 of the Sphagnales, and 325 of the Musci. These he further discusses as to their aggregation in communities and their altitudinal and horizontal distribution.—Geo. D. Fuller.

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[21] Weatherwax, Paul, The evolution of maize. Bull. Torr. Bot. Club **45**:309–342. *figs. 36.* 1918.

[22] Copeland, E. B., Keys to the ferns of Borneo. Sarawak Mus. Journ. **2**:287–424. 1917.

[23] ———, New species and a new genus of Borneo ferns. Philipp. Jour. Sci. **12**: 45–65. 1917.

[24] Hesselbo, Aug., The Bryophyta of Iceland. The Botany of Iceland. Ed. by Rosenvinge, L. K., and Warming, Eug. **1**: pt. II. 397–676. 1918.